

WHAT IS CLAIMED IS

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1. An image processing method for performing color conversion among a plurality of image forming apparatuses, comprising the steps of:

10 a) producing a plurality of color profiles provided for performing color conversion on input image information within a same color space or through different color spaces; and

15 b) selecting one of said plurality of color profiles whereby color in an image formed by one of said plurality of image forming apparatuses may be made effectively approximate color of an image formed by another of said plurality of image forming apparatuses.

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2. The image processing method as claimed in claim 1, wherein:

25 said step a) comprises the step of actually measuring color of an image formed by one of said

plurality of image forming apparatuses, and producing
the color profile whereby color of an image formed by
another of said plurality of image forming apparatuses
may be made to effectively approximate the thus-measured
5 color.

10 3. The image processing method as claimed in
claim 1, wherein:

said step b) comprises the steps of:

b-1) inputting image data in an RGB color
space; and

15 b-2) selecting one of said plurality of color
profiles provided for performing color conversion within
the RGB color space whereby colors of images formed by
first and second image forming apparatuses of said
plurality of image forming apparatuses may be made to
20 effectively approximate one another.

25 4. The image processing method as claimed in

claim 1, wherein:

said step b) comprises the steps of:

b-1) inputting image data in an RGB color space; and

5 b-2) selecting one of said plurality of color profiles provided for performing color conversion from the RGB color space through a CMYK color space whereby colors of images formed by first and second image forming apparatuses of said plurality of image forming
10 apparatuses may be made to effectively approximate one another.

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5. The image processing method as claimed in claim 1, wherein:

said plurality of color profiles are provided in a host computer which provides color information to
20 the image forming apparatus for causing it to form a color image, and said step b) is performed by said host computer.

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6. The image processing method as claimed in claim 1, wherein:

said plurality of color profiles are provided in the image forming apparatus, and said step b) is
5 performed by said image forming apparatus.

10 7. The image processing method as claimed in claim 1, wherein:

color profiles selected in said step b) comprise a color profile whereby a color difference in a predetermined color space, which does not depend on
15 apparatus types, between images formed by the image forming apparatuses, may be made to effectively approximate each other.

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8. The image processing method as claimed in claim 7, wherein:

said color space which does not depend on
25 apparatus types comprises any one of an LAB color space,

an XYZ color space and an LUV color space defined by CIE.

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9. The image processing method as claimed in claim 1, wherein:

said step a) of selecting one of said plurality of color profiles to be actually applied is performed externally of the relevant image forming apparatus.

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10. The image processing method as claimed in claim 1, wherein:

said step a) of selecting one of said plurality of color profiles to be actually applied is performed from designation of the particular image forming apparatus which is actually applied.

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11. The image processing method as claimed in claim 7, wherein:

the color profile which effectively reduces a color difference between images in the predetermined color space which does not depend on apparatus types is created by the following steps:

c) producing, in a computer, color patches from uniformly dividing a color space which depends on an apparatus type of a first image forming apparatus;

d) obtaining corresponding color patches in an image formed from said first image forming apparatus according to color patch data produced in said step c);

e) measuring coordinate values of the color patches obtained in said step d) in the predetermined color space which does not depend on apparatus types:

f) obtaining a relationship, for each color patch, between the color space which depends on the apparatus type of the first image forming apparatus and the predetermined color space which does not depend on apparatus types, based on a measurement result in said step e);

g) obtaining a relationship between the predetermined color space which does not depend on apparatus types in an image formed by a second image forming apparatus and the predetermined color space

which depends on an apparatus type of said second image forming apparatus; and

h) calculating a coordinate value in the color space which depends on the apparatus type of said second
5 image forming apparatus for each color path whereby color of an image formed by said second image forming apparatus should have a color difference which is effectively reduced from color of an image formed by said first image forming apparatus, according to the
10 relationship between the predetermined color space which does not depend on apparatus types in an image formed by said second image forming apparatus and the color space which depends on the apparatus type of said second image forming apparatus, obtained in said step g).

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12. A program comprising instructions causing
20 a computer to execute the respective steps of the image processing method claimed in claim 1.

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13. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 2.

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14. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 3.

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15. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 4.

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16. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 5.

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17. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 6.

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18. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 7.

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19. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 8.

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20. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 9.

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21. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 10.

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22. A program comprising instructions causing a computer to execute the respective steps of the image processing method claimed in claim 11.

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23. A computer readable information recording medium which stores therein the program claimed in claim 12.

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24. A computer readable information recording medium which stores therein the program claimed in claim 13.

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25. A computer readable information recording medium which stores therein the program claimed in claim 14.

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26. A computer readable information recording medium which stores therein the program claimed in claim

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27. A computer readable information recording medium which stores therein the program claimed in claim

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28. A computer readable information recording medium which stores therein the program claimed in claim

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29. A computer readable information recording medium which stores therein the program claimed in claim 18.

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30. A computer readable information recording medium which stores therein the program claimed in claim 10 19.

15 31. A computer readable information recording medium which stores therein the program claimed in claim 20.

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32. A computer readable information recording medium which stores therein the program claimed in claim 21.

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33. A computer readable information recording medium which stores therein the program claimed in claim 22.

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34. An image processing apparatus comprising:
a part performing color conversion among a
10 plurality of image forming apparatuses; and
a plurality of color profiles whereby colors
of images formed by the respective image forming
apparatuses may be made effectively approximate each
other through color conversion performed by said part
15 with the use of the color profiles.

20 35. The image processing apparatus as claimed
in claim 34, wherein:
said plurality of color profiles are provided
from actually measuring color of an image formed by one
of said plurality of image forming apparatuses, and
25 creating a color profile whereby color of an image

effectively approximating the measured color is formed by another of said plurality of image forming apparatuses approximately equal thereto.

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36. The image processing apparatus as claimed in claim 34, wherein:

10 said plurality of color profiles comprise color profiles whereby a color difference in a color space which does not depend on apparatus types between images formed by the image forming apparatuses may be made to effectively approximate each other.

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37. The image processing apparatus as claimed in claim 36, wherein:

20 said color space which does not depend on apparatus types comprises any one of an LAB color space, an XYZ color space and an LUV color space defined by CIE.

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38. The image processing apparatus as claimed in claim 34 comprising a printer driver provided in a host computer which outputs printing information to the image forming apparatus.

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39. The image processing apparatus as claimed in claim 34 comprising a controller provided in one of the plurality of image forming apparatuses which forms an image having color which is made to effectively approximate color of image formed by another of said plurality of image forming apparatuses with the use of the color profile.

20 40. The image processing apparatus as claimed in claim 34, wherein:

said plurality of color profiles comprise color conversion tables for performing color conversion in an RGB color space or conversion tables for performing color conversion from an RGB color space to a

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CMYK color space.

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41. The image processing apparatus as claimed in claim 34, further comprising a part selecting a color profile to be applied from among the plurality of color profiles.

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42. The image processing apparatus as claimed in claim 41, wherein:

a host computer which provides printing information to the image forming apparatus comprises said part selecting a color profile to be applied from among the plurality of color profiles.

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43. An image forming apparatus comprising:
the image processing apparatus claimed in

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claim 34; and

an image forming part which forms a visible image on a recording medium based on image information output from said image processing apparatus.